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Monday)

11AM George Gregory[?] - requested information - sent it to Kim via Keith.

ENERGY SYSTEMS EVALUATION TEAM

January 7 - January 25, 1991

T. W. Davidson	Team Manager	975-3768
J. P. Flynn (UESC)	Assistant Team Manager	
R. J. Arehart	Team Secretary	
L. H. Szluha	Team Secretary	
Health and Safety		
G. A. Gregory	Lead Evaluator	975-3767
T. G. Ramsey	Evaluator	
D. R. Spradlin	Evaluator	
G. T. Eagle	Evaluator	975-3766
S. A. Hamley	Evaluator	
L. C. Smith (UESC)	Evaluator	
Maintenance		
D. R. Sampson	Lead Evaluator	975-3763
H. L. Bailey, Jr.	Evaluator	
R. N. Cothron	Evaluator	
W. G. Halicks	Evaluator	
J. E. Upchurch	Evaluator	
T. B. Lee (UESC)	Evaluator	975-3764
E. Howry (Pantex)	Evaluator	
A. T. Birkenfeld (Pantex)	Evaluator	
Operations		
J. R. Sprenkle	Lead Evaluator	975-3765
E. R. Carlson (UESC)	Evaluator	
E. D. Gourieux	Evaluator	
K. Mero	Evaluator	
A. J. Wilkins	Evaluator	

APPROVED FOR RELEASE BY:
F. E. Woltz

FAX: 2780

B/ R/ C4. Ed Augie 12/5

MARTIN MARIETTA

Internal Correspondence

MARTIN MARIETTA ENERGY SYSTEMS, INC.

XC: Management Committee - LWS

11/30/90
RGD

November 28, 1990

R. G. Donnelly

APPROVED FOR RELEASE BY:
F. E. Wolfe

Martin Marietta Energy Systems Evaluation of the Portsmouth Gaseous Diffusion Plant

Martin Marietta Energy Systems, Inc. (Energy Systems) has developed an Evaluation Program to promote the highest levels of safety, reliability, and excellence in the operations of our facilities. It is the goal of the program to perform a minimum of one evaluation each year for all sites. Qualified Energy Systems staff members have been selected to serve on the Evaluation Team.

The Evaluation Team will be at the Portsmouth Gaseous Diffusion Plant for a site evaluation starting January 7, and ending February 6, 1991. The scope of this evaluation is planned to include: Maintenance, Operations, **Industrial Safety, Radiological Protection,** Criticality Safety, and **Organization and Administration.** Most of the emphasis of the evaluation will be on work activity observations, interviews with supervisors and managers, and physical inspections of the facility. The criteria used will be TSA performance objectives applicable to the subject areas.

It is requested that an introductory meeting be conducted during the week of January 7, in order for site management staff to become familiarized with Evaluation Team members. Following this meeting, the following managers should be available to conduct a tour of their respective areas of responsibility with the Evaluation Team members indicated below:

PORTS Management	Evaluation Team Members
R. G. Donnelly	T. W. Davidson
J. E. Shoemaker	J. P. Flynn, Jr.
W. J. Lemmon, Jr.	D. R. Sampson
R. D. McDermott	J. R. Sprenkle
J. A. Steward	G. A. Gregory

These tours are a very important part of the evaluation process. They give the Evaluation Team an opportunity to become acquainted with management and to learn what plant areas are most important.

The Evaluation Team will conduct a debrief for you and your division managers on January 25, 1991. An exit meeting with upper management will be conducted on February 6, 1991.

The team members for the Portsmouth Gaseous Diffusion Plant evaluation are:

T. W. Davidson - Team Manager
J. P. Flynn, Jr. - Assistant Team Manager (UESC)
G. A. Gregory - Health and Safety Lead Evaluator
D. R. Sampson - Maintenance Lead Evaluator
J. R. Sprenkle - Operations Lead Evaluator
H. L. Bailey, Jr. - Evaluator
R. N. Cothron - Evaluator
G. T. Eagle - Evaluator
E. D. Gourieux - Evaluator
W. G. Halicks - Evaluator
S. A. Hamley - Evaluator
K. Mero - Evaluator
D. R. Spradlin - Evaluator
J. K. Upchurch - Evaluator
A. J. Wilkins - Evaluator

E. R. Carlson - United Energy Services Corporation
T. B. Lee - United Energy Services Corporation
L. C. Smith - United Energy Services Corporation

The general schedule for the evaluation will be as follows:

Week 1	January 7 - 11	Team orientation, team schedule development, planning, procedures review, team introduction, counterpart tours, and facility material condition inspections
Week 2	January 14 - 19	Work activity observations, interviews, and counterpart debriefings
Week 3	January 21 - 24	Work activity observations, interviews, counterpart debriefing
	January 25	Concerns debrief with plant manager
Week 4	January 28 - February 1	Preparation of findings and recommendations
Week 5	February 6	Exit debrief

Attached is a list of procedures, documentation, administrative support, equipment, and meeting space required for the evaluation. Please advise me if there are any problems. I am looking forward to working with you and your staff during January.

T. W. Davidson, Pine Ridge, MS-6499 (6-6003) - RC

TWD:mja

Attachment

cc: C. C. Hopkins
F. R. Mynatt
H. B. Piper
H. Postma
C. K. Stalnaker

Evaluation of the Portsmouth Gaseous Diffusion Plant

The following items will be needed to support the evaluation effort:

1. Maintenance Procedures (both divisional administrative and working level) for all major divisions.
2. Operating Procedures (emergency operating and working level) for all major divisions.
3. A list of operational facilities (buildings) for which each of the major divisions are responsible.
4. Health and Safety Procedures (administrative/program/working level).
5. Twenty of the most recent accident/incident/unusual occurrence reports.
6. Current OSRs.
7. Standard Practice Procedures.
8. General Policy Procedures.
9. Quality Assurance Procedures.
10. Portsmouth Organization Charts

Administrative Support

1. One full-time secretary between January 21st and 24th with Word Perfect experience.
2. One person as a point of contact for additional assistance and support.

Equipment and Facilities

1. One large meeting room to accommodate approximately 24 people.
2. Four break-out rooms to accommodate at least six people each.
3. Two personal computers with Word Perfect 5.1 capabilities.
4. Two LaserJet printers.

Equipment and Facilities (continued)

5. Five telephones with PORTS and area phone directories.
6. Three government licensed vehicles for the duration of the evaluation.
7. One high-speed copier.
8. One heavy-duty paper shredder.
9. Six hard hats.
10. Twelve pair of safety glasses.
11. One three-hole punch, two staplers, three scotch tape dispensers, and three pair of scissors.

MARTIN MARIETTA

Internal Correspondence

MARTIN MARIETTA ENERGY SYSTEMS, INC.

Martin Marietta Energy Systems, Inc.

Evaluations Program

FACSIMILE

Pine Ridge, MS-6499

This document consists of 9 page(s)
(Excluding Cover Sheet)

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Machine Number (615) 576-6002 Verification Number (615) 576-4462

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TO: Keith Stalnaker

PHONE: 975-2200

FROM: Henry Piper

PHONE: 624-4980

DATE: 12-21-90

REMARKS:

Merry Christmas!
from
the Evaluation Group

MARTIN MARIETTA

Internal Correspondence

MARTIN MARIETTA ENERGY SYSTEMS, INC.

December 21, 1990

W. J. Lemmons, Jr.
R. D. McDermott
C. W. Sheward
C. K. Stalnaker
R. L. Winegar

Assistance Visit, December 10-14, 1990

Six members of the Evaluation Group conducted an assistance visit at the Portsmouth Gaseous Diffusion Plant December 10 through December 13. The purpose of the visit was to provide assistance in the following two areas: (1) the work process and interfaces among work groups to minimize downtime for process cells, and (2) contamination control methods used for cell repairs and at Boundary Control Stations. As requested, only activities in Building X333 were observed.

The attached report contains the recommendations.

Please contact D. R. Sampson, FTS 626-4628, if you have any comments or questions.

H. B. Piper, Pine Ridge, MS-6499 (4-4980) - RC

HBP:mja

Attachment

cc/att: D. R. Sampson
Assistance File

cc: R. G. Donnelly
K. W. Sommerfeld

ASSISTANCE VISIT FOR
PORTSMOUTH GASEOUS DIFFUSION PLANT

DECEMBER 1990

TABLE OF CONTENTS

ASSISTANCE VISIT FOR
PORTSMOUTH GASEOUS DIFFUSION PLANT

I. SCOPE

Three days were spent observing work activities and interviewing workers and supervisors. The fourth day consisted of developing recommendations and providing the recommendations to plant staff at an exit debrief on Thursday afternoon, December 13.

Members of the Evaluation Group Assistance Team were D. R. Sampson (Team Leader), J. R. Sprenkle, A. J. Wilkins, J. P. Flynn (one day), T. B. Lee, and L. C. Smith.

Plant staff present at the exit debrief were the following:

W. J. Lemmons, Jr.	Division Manager, Maintenance
R. D. McDermott	Division Manager, Production
C. W. Sheward	Division Manager, Environment, Safety, and Health
C. K. Stalnaker	Program Manager, UE-PIP
R. L. Winegar	Department Superintendent, Cascade Operations

II. SUMMARY

The most significant recommendation to minimize process cell downtime was to ensure that some individual is made responsible to coordinate everyone's efforts toward getting cells back on-line.

While the focus of the assistance visit was on short-term recommendations for improvement, long-term recommendations were also provided. The long-term recommendations should be part of the initial implementation phases of the Conduct of Operations and Conduct of Maintenance.

III. RECOMMENDATIONS - SHORT-TERM

A. Cell Outage Manager

Assign an experienced operations/maintenance person (operations experience more important) with managerial experience as a "cell outage manager." His recommended duties are as follows:

1. Assign him "x" cells to get on-line as expeditiously as possible.

2. Develop a detailed schedule for putting these cells back on-line with input from each support organization. Schedule/perform as many work evolutions as possible in parallel, rather than in series.

3. Focus efforts on these priority cells and coordinate everyone's effort into getting these cells back on-line. Make sure everyone involved knows what must be done next and who must do it for each step in the schedule.

4. Chair a daily "coordination" meeting attended by production, maintenance, chemical operations, and health physics representatives. These representatives must have the authority to make decisions and commitments for their respective organizations. The meeting should accomplish the following:

   a. Publish one schedule. Set priorities for maintenance, chemical operations, and health physics and ensure everyone works toward achieving the established priorities. This includes pursuing and eliminating potential sources of delay in returning cells to service.

   b. Make it clear who is the only person who can change priorities.

5. Combine all available documents, such as the cell shutdown "long sheet," the Cell Off Stream Work Sheet [Form A-588A (12-79)], the Cell Off Stream Work Sheet and Check List [Form A-588 (10-86)], the draft X-333 Planned Seal Change Work Sheet (File 0035/SEAL WP/October 13, 1989), and any other detailed work sheets, to form one, all-encompassing, detailed check sheet for all anticipated cell work. Then use this check sheet to track progress and hold appropriate individuals accountable for any delays.

B. Shift Supervisors

Split the duties and responsibilities of the two "on-shift" supervisors.

1. One supervisor should focus his efforts on the actual control of production operations, i.e., directly supervise the actions of the on-shift operators, maintain the shift supervisor's log, respond to alarms, and perform other activities that directly affect the production process.

2. The other supervisor should focus on issuing permits, coordinating work with organizations outside the building to get work completed

inside the building, and performing any other actions required to support getting work accomplished expeditiously.

C. Chemical Operations Support

Improve the following areas to minimize cell downtime and provide safe and consistent work performance:

1. Define more specifically as to the purpose and physical extent of cleaning performed by Chemical Operators. Provide an instruction package that includes sketches/drawings and supplemental information based on equipment conditions and radiological surveys.

2. Require immediate feedback from Chemical Operators to Operations personnel when cleaning is completed.

3. Provide instructions that ensure consistent use of protective clothing by Chemical Operators during cleaning jobs.

4. Ensure effective/consistent monitoring of themselves and tools/equipment by Chemical Operators when exiting temporary boundary control stations.

5. Review requirements for reuse of mops, buckets, water, gloves, tools, and equipment when cleaning multiple locations. Determine handling methods and radiological monitoring requirements for transport between job locations. Provide the instructions to Chemical Operations personnel.

D. Maintenance Planning

Expand and refocus the maintenance planning efforts to incorporate more job planning into cell maintenance. Include the following points:

1. Develop detailed job plans for the repetitive repair jobs on the cells. Identify the tools, equipment, parts, materials, and permits required for each job and ensure that these items are available for use when needed to perform maintenance on a cell.

2. Make maintenance planners responsible for coordinating and scheduling maintenance activities include cell corrective maintenance (CM), preventive maintenance (PM), and other work such as

inspections and tagouts on maintenance-owned rigging and handling equipment.

E. Contamination Control

1. Boundary Control Stations

Establish uniformity in the setup and entry/exit requirements for permanent and temporary Boundary Control Stations (BCS). Provide sketches and written instructions to ensure that the same basic physical arrangements and entry/exit methods are in place. Sketches and instructions should include the following:

a. Location of instrumentation to ensure workers monitor themselves as near the exit point as possible.

b. Location of clothing disposal containers near the exit point.

c. Types of protective clothing and their purpose, including instructions for donning and removing the clothing.

d. Signs listing the items of protective clothing and equipment be worn, posted at the entrance for users.

e. Instructions for removal, monitoring, and packaging of tools or equipment.

f. Extent of monitoring required when exiting areas, such as hands and feet, or whole body monitoring after working in contaminated areas.

g. Instructions for removal, monitoring, and transfer of respiratory equipment. Whether respirators can be reused after use in contaminated areas should also be addressed.

2. Exit Monitor Print Outs

Review at least daily the computerized printouts from the hand and foot monitors at the building exit points to aid in controlling the spread of contamination. Reviews should accomplish the following:

a. Ensure personnel that are identified as contaminated on the printout either remonitored themselves and were not

contaminated or their supervisors were notified and appropriate action was taken.

b. Determine if personnel exited the building after the instrument indicated they were contaminated and take appropriate corrective action if such exiting occurs.

c. Evaluate the printouts for trends such as the majority of personnel contamination occurring in specific work groups or in localized areas of the building. A long-term trend of the total number of contaminations versus time (in months) should also be developed. Analyze the trends and initiate corrective actions as necessary.

F. Heat Stress

Review and use as appropriate, published guidelines for working in heat stress conditions. Evaluate protective clothing use with considerations for heat stress, radiation protection, chemical protection, and type of work to be performed. Obtain various types of protective clothing with manufacture information and test under controlled conditions each type for compatibility with application. For example, have maintenance workers use various types of protective clothing to perform the same job in the same location.

IV. RECOMMENDATIONS - LONG-TERM

A. Operations Logbooks and Equipment Status

1. Ensure all established logs are adequately maintained and reviewed. The following should be addressed:

   a. Format for entries and requirements for review should be determined and communicated to operators and supervisors.

   b. All required data should be properly entered.

   c. Events should be recorded in a timely fashion to ensure the accuracy of the entry.

2. Ensure that the operating crew knows the status of process equipment that is operating, removed, or scheduled for installation in process systems. Location of major process system components should be

known and documented. Location changes should be documented and communicated through the shift turnover process.

B. Maintenance Work Requests

Develop and implement a work package system that will define and document the work activity performed for each job. The planning process should prepare the work package and include, as appropriate, at least the following: the necessary work instructions, drawings, procedures, etc.; the tools, equipment, parts, materials, permits etc.; the work request; any special conditions (i.e. radiological, operational, etc.); inspection requirements (quality control, ASME code, ALARA, etc.); job closeout requirements; post-maintenance testing requirements; and return to service requirements. The number of items included in the work package and the level of detail of each item in the package should be commensurate with the complexity of the job.

C. Health Physics Requirements

Reevaluate process cell jobs with high potential for release of radioactivity to clearly define protective clothing and respiratory requirements as applied to specific steps of job activities. Have experienced maintenance, operations, and health physics personnel observe the job activities and write the controls for the individual job activities. Later, reevaluate the job activities with less potential for release of radioactivity using the same method of evaluation.